Amendments To The Claims:

Claim 1 (Currently Amended): A substantially pure nucleic acid sequence encoding a serotonin-gated anion channel, wherein said anion channel is regulated by serotonin binding and selectively permits passage of anions from one side of said channel to the other, and wherein said nucleic acid sequence hybridizes to the complement of the sequence of SEQ ID NO:2 under conditions comprising hybridization at about 42EC in about 50% formamide followed by a first wash at about 65EC in about 2X SSC sodium chloride/sodium citrate solution and about 1% Sodium Dodecyl Sulfate, and a second wash at about 65EC in about 1X SSC sodium chloride/sodium citrate solution and about 1% Sodium Dodecyl Sulfate.

Claim 2 (Canceled).

Claim 3 (Original): The nucleic acid sequence of claim 1, wherein said serotonin-gated anion channel is a chloride channel.

Claim 4 (Canceled).

Claim 5 (Original): The nucleic acid sequence of claim 1, wherein said serotonin-gated anion channel is MOD-1.

Claims 6-22 (Canceled).

Claim 23 (Currently Amended): ~~The nucleic acid sequence of claim 1~~ A substantially pure nucleic acid sequence encoding a serotonin-gated anion channel ~~wherein said anion channel is regulated by serotonin binding and selectively permits passage of anions from one side of said channel to the other~~, wherein said nucleic acid sequence comprises the sequence of SEQ ID NO:2.

Claim 24 (Currently Amended): A substantially pure nucleic acid sequence encoding a serotonin-gated anion channel, wherein said serotonin-gated anion channel comprises the sequence of SEQ ID NO:3.